

Author Index

- Al-Ahmadi, M. S., 35
Al-Saleh, M. A., 35
Amidon, G. L., B39
Andrews, G., B31
- Bascoul, A., 11
Brauner, N., 1
- Cáceres, E., 43
Chávez, O., B1
Couderc, J. P., 11
- Deckwer, W.-D., 177
Delmas, H., 11
di Fellice, R., 25
- Fajner, D., 53
Foscolo, P. U., 25
- Ghosh, S. K., 93
Gianetto, A., B23
Gibilaro, L. G., 25
Guigon, P., 137
- Henry, B. D., 115
Hoffmann, H., B17
- Jiménez, A., B1
Jones, M. T., 165
- Kalhaoui, R., 137
Kataoka, T., 107
Kloosterman, J., B47
- Large, J. F., 137
- Magelli, F., 53
Mansour, A. R., B39
Maron, D. M., 1
- Najib, N., B39
Nocentini, M., 53
- Oztürk, S. S., 177
- Pasquali, G., 53
Puijhaner, L., 43
- Rao, Ch. S., 149
Rao, M. R., 149
Recasens, F., 43
Ruggeri, B., B23
- Sathiyamoorthy, D., 149
Schmidt, W., B17
Schügerl, K., B17
Senthilnathan, P. R., 93
Shah, Y. T., 177
Shalabi, M. A., 35
Slater, N. K. H., B47
Specchia, V., B23
Spedding, P. L., 123, 165
Sriram, P. G., 93
Suarez, C., 79, 85
- Teja, A. S., 65, 71
- van der Padt, A., B47
van Wassenaar, P. D., B47
Viollaz, P., 79, 85
- Waldram, S. P., 25
Willman, B., 65, 71
- Yoshida, H., 107



Subject Index

- Adsorption**
adsorption of HgCl_2 on Cl^- — form anion exchangers — equilibrium isotherm, 107
- Aerosol**
liquid aerosol capture in a cross-flow granular bed filter, 137
- Anion exchangers**
adsorption of HgCl_2 on Cl^- — form anion exchangers — equilibrium isotherm, 107
- Bead milling**
integrated approach to the recovery of intracellular products from yeasts by bead milling and precoat filtration, B47
- Berty reactor**
kinetic study of ethylene oxidation in a Berty reactor, 35
- Biomass feedstocks**
economic assessment of biomass feedstocks for the chemical industry, B1
- Bioparticles**
effectiveness factors for bioparticles with Monod kinetics, B31
- Bioreactor**
use of membranes to improve bioreactor performance
II. *Zymomonas mobilis* fermentation, B17
- Boundary-layer solution**
boundary-layer solution of the diffusion equation with shrinking, 79
- Chemical equilibria**
computations for multistage multicomponent separation involving chemical equilibria and ionic equilibria and reactions, 93
- Chemical industry**
economic assessment of biomass feedstocks for the chemical industry, B1
- Chloride**
adsorption of HgCl_2 on Cl^- — form anion exchangers — equilibrium isotherm, 107
- Columns**
heat and mass transfer in wetted-wall columns: I, 165
- Corresponding states calculations**
characteristic viscosity as a third parameter in corresponding states calculations of transport properties
Part I. Defined mixtures, 65
characteristic viscosity as a third parameter in corresponding states calculations of transport properties
Part II. Undefined mixtures, 71
- Cross-flow granular bed filter**
liquid aerosol capture in a cross-flow granular bed filter, 137
- Defined mixtures**
characteristic viscosity as a third parameter in corresponding states calculations of transport properties
Part I. Defined mixtures, 65
- Diffusion**
diffusion with shrinking in slabs: an approximate analytical solution, 85
- Diffusion equation**
boundary-layer solution of the diffusion equation with shrinking, 79
- Distributors**
effect of distributors on heat transfer from immersed surfaces in gas fluidised beds, 149
- Effectiveness factors**
effectiveness factors for bioparticles with Monod kinetics, B31
- Equilibrium isotherm**
adsorption of HgCl_2 on Cl^- — form anion exchangers — equilibrium isotherm, 107
- Ethanol production**
ethanol production from lactose by *Kluyveromyces fragilis*: kinetic study on an immobilized yeast reactor, B23
- Ethylene oxidation**
kinetic study of ethylene oxidation in a Berty reactor, 35
- Fermentation**
use of membranes to improve bioreactor performance
II. *Zymomonas mobilis* fermentation, B17
- Filtration**
integrated approach to the recovery of intracellular products from yeasts by bead milling and precoat filtration, B47
- Fluid-dynamic study**
fluid-dynamic study of a gas-liquid, non-standard vessel stirred by multiple impellers, 53
- Fluid-solid transport**
application of the Lockhart-Martinelli theory to fluid-solid transport, 123
- Fluidization**
fluidization quality: A criterion for indeterminate stability, 25
hydrodynamic characteristics of liquid-solid fluidization: influence of the distributor, 11
- Gas**
comparison of gas and liquid phase methanol synthesis processes, 177
- Gas fluidised beds**
effect of distributors on heat transfer from immersed surfaces in gas fluidised beds, 149
- Gas-liquid, non-standard vessel**
fluid-dynamic study of a gas-liquid, non-standard vessel stirred by multiple impellers, 53

Gastrointestinal transit time

gastrointestinal transit time: an in vitro study of parameters controlling the mean relative residence times of particles in a laminar fluid flowing in a horizontal tube, B39

Heat transfer

effect of distributors on heat transfer from immersed surfaces in gas fluidised beds, 149

Hydration

trickle-bed process for hydration of isobutene to tert-butyl alcohol: a study of reactor performance, 43

Hydrodynamic characteristics

hydrodynamic characteristics of liquid-solid fluidization: influence of the distributor, 11

Immobilized yeast reactor

ethanol production from lactose by *Kluyveromyces fragilis*: kinetic study on an immobilized yeast reactor, B23

Impellers

fluid-dynamic study of a gas-liquid, non-standard vessel stirred by multiple impellers, 53

Ionic equilibria

computations for multistage multicomponent separation involving chemical equilibria and ionic equilibria and reactions, 93

Isobutene

trickle-bed process for hydration of isobutene to tert-butyl alcohol: a study of reactor performance, 43

Isotherm

adsorption of HgCl_2 on Cl^- — form anion exchangers — equilibrium isotherm, 107

Kinetic study

ethanol production from lactose by *Kluyveromyces fragilis*: kinetic study on an immobilized yeast reactor, B23
kinetic study of ethylene oxidation in a Berty reactor, 35

Kluyveromyces fragilis

ethanol production from lactose by *Kluyveromyces fragilis*: kinetic study on an immobilized yeast reactor, B23

Lactose

ethanol production from lactose by *Kluyveromyces fragilis*: kinetic study on an immobilized yeast reactor, B23

Laminar fluid

gastrointestinal transit time: an in vitro study of parameters controlling the mean relative residence times of particles in a laminar fluid flowing in a horizontal tube, B39

Liquid

comparison of gas and liquid phase methanol synthesis processes, 177

Lockhart-Martinelli theory

application of the Lockhart-Martinelli theory to fluid-solid transport, 123

Mass transfer

heat and mass transfer in wetted-wall columns: I, 165

Mathematical models

adsorption of HgCl_2 on Cl^- — form anion exchangers — equilibrium isotherm, 107

Membranes

use of membranes to improve bioreactor performance

II. *Zymomonas mobilis* fermentation, B17

Mercury chloride

adsorption of HgCl_2 on Cl^- — form anion exchangers — equilibrium isotherm, 107

Methanol

comparison of gas and liquid phase methanol synthesis processes, 177

Monod kinetics

effectiveness factors for bioparticles with Monod kinetics, B31

Optimum distillation sequences

adsorption of HgCl_2 on Cl^- — form anion exchangers — equilibrium isotherm, 107

Oxidation

kinetic study of ethylene oxidation in a Berty reactor, 35

Precoat filtration

integrated approach to the recovery of intracellular products from yeasts by bead milling and precoat filtration, B47

Reactor performance

trickle-bed process for hydration of isobutene to tert-butyl alcohol: a study of reactor performance, 43

Residence times

gastrointestinal transit time: an in vitro study of parameters controlling the mean relative residence times of particles in a laminar fluid flowing in a horizontal tube, B39

Separation

computations for multistage multicomponent separation involving chemical equilibria and ionic equilibria and reactions, 93

Shrinking

boundary-layer solution of the diffusion equation with shrinking, 79
diffusion with shrinking in slabs: an approximate analytical solution, 85

Stability

fluidization quality: A criterion for indeterminate stability, 25

Surfaces

effect of distributors on heat transfer from immersed surfaces in gas fluidised beds, 149

Synthesis processes

comparison of gas and liquid phase methanol synthesis processes, 177

Tert-butyl alcohol

a trickle-bed process for hydration of isobutene to tert-butyl alcohol: a study of reactor performance, 43

Transport properties

characteristic viscosity as a third parameter in corresponding states calculations of transport properties

Part I. Defined mixtures, 65

characteristic viscosity as a third parameter in corresponding states calculations of transport properties

Part II. Undefined mixtures, 71

Trickle-bed process

trickle-bed process for hydration of isobutene to tert-butyl alcohol: a study of reactor performance, 43

Turbulent withdrawal

turbulent withdrawal: application to wavy flow modelling, 1

Undefined mixtures

characteristic viscosity as a third parameter in corresponding states calculations of transport properties

Part II. Undefined mixtures, 71

Viscosity

characteristic viscosity as a third parameter in corresponding states calculations of transport

properties

Part I. Defined mixtures, 65

characteristic viscosity as a third parameter in corresponding states calculations of transport properties

Part II. Undefined mixtures, 71

Wavy flow modelling

turbulent withdrawal: application to wavy flow modelling, 1

Wetted-wall columns

heat and mass transfer in wetted-wall columns: I, 165

Yeast

ethanol production from lactose by *Kluyveromyces fragilis*: kinetic study on an immobilized yeast reactor, B23

integrated approach to the recovery of intracellular products from yeasts by bead milling and precoat filtration, B47

Zymomonas mobilis

use of membranes to improve bioreactor performance

II. *Zymomonas mobilis* fermentation, B17

